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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/709,629

05/18/2004

Kazumichi MACHIDA

040184

3628

23850

7590

08/10/2006

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP  
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WASHINGTON, DC 20006

EXAMINER

CHAN, EMILY Y

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/709,629

Applicant(s)

MACHIDA ET AL.

Examiner

Emily Y. Chan

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/20/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

Claim 1 is objected to because of the following informalities: in the claim 1, the probe structure is unclear because it is not specified where the contact portion and abutting portion are. Appropriate correction is required.

### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1-5 are provisionally rejected on the ground of nonstatutory obvious double patenting over claim 1 of copending Application No. 10/709,435 in view of Kanamaru et al US Patent No. 6,496,023.

With respect to claim 1 of the instant invention, the claim 1 of copending Application No. 10/709,435 expressly recites a probe sheet unit (a probe card) being a sensing section of a Semiconductor wafer measuring instrument comprising;

sheet member (base plate),  
one end of each probe being supported by the sheet member (base plate),  
each probe comprising a support portion, a contact portion and an abutting portion to abut the surface of the sheet member (base plate) and then the abutting portion slides in a horizontal direction on the surface of the sheet member while the contacting portion slides in the same direction as the abutting portion on the surface of the measurement object.

The difference between the claim 1 of copending Application No. 10/709,435 and the claim 1 of the instant invention is that the claim 1 of copending Application No. 10/709,435 fails to recite a base plate which the sheet member is mounted to.

Kanamaru et al (023) disclose a probe sheet unit (see Fig 4) and exclusively teach a base plate (probe forming board 4) mountable to a prober of an instrument (wafer inspection apparatus), plural measurement probes (6) and a sheet member (19) mounted to the base plate (probe forming board 4).

Therefore, It would have been obvious to one of ordinary skilled in the art at the time the claimed invention was made to incorporate the base plate of Kanamaru et al (023) into the claim 1 of the copending Application No. 10/709,435 so that the claim 1 of co-pending application No. 10/709,435 encompasses the scope and elements of the instant application because Kanamaru et al (023) disclose that in their apparatus, the

variation of the height for the electrode pads for inspection is absorbed and the probes are caused to scrape the surfaces of the electrode pads, thereby making it possible to obtain satisfactory continuity (see Col. 5, lines 28-33).

With respect to claim 2, Kanamaru et al ('023) disclose wiring patterns formed inside and/or on a surface of the sheet member (19) and an external electrode connected electrically to the probes (6) through the wiring patterns provided on the surface of the sheet member (see Fig. 2).

With respect to claim 3, Kanamaru et al ('023) circuit elements are provided inside and/or on a surface of the sheet member (19) and the circuit elements are connected electrically to the wiring patterns (see Fig. 2, circuit element and wiring pattern connection).

With respect to claim 4 of the instant invention, the claim 8 of copending Application No. 10/709,435 recites an identical reinforcing member.

With respect to claim 5 of the instant invention, the claim 9 of copending Application No. 10/709,435 recites an identical an identical reinforcing member.

2. Claims 6-7 are provisionally rejected on the ground of nonstatutory obvious double patenting over claim 1 of copending Application No. 10/709,435 in view of Kanamaru et al US Patent No. 6,496,023 as applied to claim 1 above, and further in view of Gleason et al US patent No. 5,914,613.

With respect to the claim 6, the claim 1 of copending Application No. 10/709,435 in view of Kanamaru et al US Patent No. 6,496,023 do not specify that the sheet

member is made of material with linear expansion coefficient in the range of from 2.5 to 10.5 ppm/C .

Gleason et al ('613) disclose a membrane probing system with local contact scrub (see Fig. 7B) comprising a base plate (70), a sheet member (72a) mounted to the base plate (70). Since Gleason et al ('613) disclose that their sheet member (72a) is made of flexible material, which would inherently meet the claimed material of the sheet member with a linear expansion coefficient in the range of from 2.5 to 10.5 ppm/oC.

With respect to claim 7, the claim 1 of copending Application No. 10/709,435 in view of Kanamaru et al US Patent No. 6,496,023 do not disclose an elastic member interposed between the base plate and the sheet member.

Gleason et al ('613) exclusively teach an elastic member (98) which is interposed between the base plate (70) and the sheet member (72).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time the claimed invention was made to incorporate the teaching of the an elastic member (98) interposed between the base plate and the sheet member into the claim 1 of the co copending Application No. 10/709,435 and Kanamaru et al ('023)'s probe sheet device because Gleason et al ('613) disclose that their elastic member (98) accommodates minor height variations between the respective contacts (see Col. 8, lines 47-49).


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emily Y. Chan whose telephone number is 571-272-1956. The examiner can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ha T Nguyen can be reached on 571-272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EC  
8/2/06

  
**VINH NGUYEN**  
**PRIMARY EXAMINER**  
A.U. 2829  
08/07/06